

METHOD OF MANUFACTURING RIVETS HAVING HIGH STRENGTH AND FORMABILITY

ABSTRACT OF THE DISCLOSURE

A rivet having improved formability is provided. The rivet has a shank having a head at one end. The shank and the head have a refined grain structure. The rivet is manufactured from the region of the workpiece having a refined grain structure by first forming a region having a refined grain structure in a workpiece and then forming the rivet. The refined grain structure results in improved mechanical properties, such as formability, strength, toughness, ductility, corrosion resistance, and fatigue resistance. The improved formability of the rivet reduces the formation and propagation of cracks during the manufacture and installation of the rivets.

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